# IQSEC1 siRNA – Iq Motif and SEC7 Domain-Containing Protein 1 Isoform a (Human)

## PRODUCT OVERVIEW

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| **Product Name** | IQSEC1, siRNA |
| **Full Product Name** | IQSEC1 siRNA (Human) |
| **Product Gene Name** | IQSEC1 sirna |
| **Product Synonym Names** | ARFGEP100; BRAG2; KIAA0763; IQ motif and SEC7 domain-containing protein 1; ADP-ribosylation factors guanine nucleotide-exchange protein 100; ADP-ribosylation factors guanine nucleotide-exchange protein 2; Brefeldin-resistant Arf-GEF 2 protein |
| **Host** | Synthetic |
| **Species Reactivity** | Human |
| **Form/Format** | Lyophilized powder |
| **Purity/Purification** | > 97% |
| **Specificity** | IQSEC1 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression. |
| **Preparation and Storage** | Shipped at 4 degree C. Store at -20 degree C for one year. |
| **Molecular Weight** | 94,914 Da |
| **OMIM** | 610166 |
| **3D Structure** | ModBase 3D Structure for Q6DN90 |
| **Negative Control** | siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection. |
| **Quality Control** | Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency. |
| **Directions for Use** | We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well). |
| **Components** | We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human IQSEC1 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo. |
| **Applications Tested/Suitable for IQSEC1 sirna** | RNA Interference (RNAi) |
| **Related Product Information for IQSEC1 sirna** | MBS8238255 is an siRNA targeting IQSEC1. Also known as IQSEC1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit IQSEC1 expression using RNA interference |
| **Other Notes** | Small volumes of IQSEC1 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IQSEC1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 197304786 |
| **NCBI GeneID** | 9922 |
| **NCBI Accession #** | NP_001127854.1 |
| **UniProt Primary Accession #** | Q6DN90 |
| **UniProt Secondary Accession #** | O94863; Q96D85 |
| **UniProt Related Accession #** | Q6DN90 |
| **GenBank Nucleotide #** | NM_001134382.2 |
| **NCBI Official Full Name** | IQ motif and SEC7 domain-containing protein 1 isoform a |
| **NCBI Official Synonym Full Names** | IQ motif and Sec7 domain 1 |
| **NCBI Official Symbol** | IQSEC1 |
| **NCBI Official Synonym Symbols** | BRAG2; GEP100; ARFGEP100; ARF-GEP100 |
| **UniProt Protein Name** | IQ motif and SEC7 domain-containing protein 1 |
| **UniProt Synonym Protein Names** | ADP-ribosylation factors guanine nucleotide-exchange protein 100; ADP-ribosylation factors guanine nucleotide-exchange protein 2; Brefeldin-resistant Arf-GEF 2 protein |
| **Protein Family** | IQ motif and SEC7 domain-containing protein |
| **UniProt Gene Name** | IQSEC1 |
| **UniProt Synonym Gene Names** | ARFGEP100; BRAG2; KIAA0763; BRAG2 |
| **UniProt Entry Name** | IQEC1_HUMAN |
| **NCBI Protein Information** | IQ motif and SEC7 domain-containing protein 1 |
| **UniProt Comments for IQSEC1** | IQSEC1: In addition to accelerate GTP gamma S binding by ARFs of all three classes, it appears to function preferentially as a guanine nucleotide exchange protein for ARF6, mediating internalisation of beta-1 integrin. Belongs to the BRAG family. Interacts with ARF6. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: GAPs, ARF; GAPs; Motility/polarity/chemotaxis<br><br>Chromosomal Location of Human Ortholog: 3p25.2<br><br>Cellular Component: membrane; trans-Golgi network; nucleus<br><br>Molecular Function: ARF guanyl-nucleotide exchange factor activity<br><br>Biological Process: vesicle-mediated transport; regulation of ARF protein signal transduction; actin cytoskeleton organization and biogenesis; positive regulation of GTPase activity |
| **Research Articles on IQSEC1** | **1.** Brag2 is essential for developmental and pathological angiogenesis by promoting endothelial cell sprouting through regulation of adhesion by beta1-integrin internalization and link for the first time the process of beta1-integrin endocytosis with angiogenesis. |
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